

1. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3,
- b) a naturally occurring polypeptide comprising an amino acid sequence at least 90% identical to an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3,
- c) a biologically active fragment of a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3, and
- d) an immunogenic fragment of a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3.

2. An isolated polypeptide of claim 1, having a sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3.

3. (Once Amended) An isolated polynucleotide encoding a polypeptide selected from the group consisting of:

- a) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3,
- b) a naturally occurring polypeptide comprising an amino acid sequence at least 90% identical to an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3, and
- c) an immunogenic fragment of a polypeptide consisting of an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3, wherein said fragment is at least five amino acid residues in length.

4. (Once Amended) An isolated polynucleotide of claim 3 encoding a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3.

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5. (Once Amended) An isolated polynucleotide of claim 4, comprising a polynucleotide sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:4.

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6. A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 3.

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7. A cell transformed with a recombinant polynucleotide of claim 6.

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9. (Once Amended) A method for producing a polypeptide, the method comprising:  
a) culturing the cell of claim 7 under conditions suitable for expression of the polypeptide, and  
b) recovering the polypeptide so expressed.

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10. A method of claim 9, wherein the polypeptide has a sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:3.

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11. An isolated antibody which specifically binds to a polypeptide of claim 1.

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12. (Once Amended) An isolated polynucleotide selected from the group consisting of:  
a) a polynucleotide comprising a polynucleotide sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:4,

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B 3  
b) a naturally occurring polynucleotide comprising a polynucleotide sequence at least 90% identical to a polynucleotide sequence selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:4,

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c) a polynucleotide having a sequence completely complementary to a polynucleotide of a) over the entire length of the polynucleotide of a), and

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d) a polynucleotide having a sequence completely complementary to a polynucleotide of b) over the entire length of the polynucleotide of b).

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13. An isolated polynucleotide comprising at least 60 contiguous nucleotides of a polynucleotide of claim 12.

14. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 12, the method comprising:

a) hybridizing the sample with a probe comprising at least 20 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and

b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

15. A method of claim 14, wherein the probe comprises at least 60 contiguous nucleotides.

16. A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 12, the method comprising:

a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification; and

b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

28. A method for screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a polynucleotide sequence of claim 5, the method comprising:

a) exposing a sample comprising the target polynucleotide to a compound, under conditions suitable for the expression of the target polynucleotide,

b) detecting altered expression of the target polynucleotide, and

c) comparing the expression of the target polynucleotide in the presence of varying amounts of the compound and in the absence of the compound.

29. A method for assessing toxicity of a test compound, said method comprising:

a) treating a biological sample containing nucleic acids with the test compound;  
b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 20 contiguous nucleotides of a polynucleotide of claim 12 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 12 or fragment thereof;

c) quantifying the amount of hybridization complex; and

d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.

46. A polypeptide of claim 1, comprising the amino acid sequence of SEQ ID NO:1.

47. A polypeptide of claim 1, comprising the amino acid sequence of SEQ ID NO:3.

48. A polynucleotide of claim 12, comprising the polynucleotide sequence of SEQ ID NO:2.

49. A polynucleotide of claim 12, comprising the polynucleotide sequence of SEQ ID NO:4.